Customer No.: 31561
Application No.: 10/065,091
Docket No.: 5486-US-PA

REMARKS

Present Status of the Application

This is a full and timely response to the outstanding non-final Office Action mailed on October 23, 2006. The Office Action has rejected claims 1-5, 7-12, and 56-61 under 35 U.S.C. 102(e) as being anticipated by and has rejected claim 13 under 35 USC 103(a) as being unpatentable over Tanada et al. (Tanada hereinafter, US Publication 2002/0054257). The Office Action has also rejected claim 6 under 35 U.S.C. 103(a), as being unpatentable over Tanada in view of Nakai et al. (Nakai, hereinafter, U.S. Patent No. 6,144,429).

In this response, claims 1, 13, 56 and 59 have been amended and claim 6, 8, 9, 12, 60, and 61 have been cancelled to more accurately describe the present invention. Upon entry of the amendments, claims 1-5, 7, 10, 11, 13, 24-33 and 44-59 remain pending. It is believed that no new matter is added by way of these amendments made to the claims or otherwise to the application.

After carefully considering the remarks set forth in this Office Action and the cited references, it is strongly believed that the cited references are deficient to adequately teach the claimed features as recited in the amended claims. The reasons that motivate the above position of the Applicants are discussed in detail hereafter, upon which reconsideration of the claims is most earnestly solicited.

Discussion of Office Action Rejections

Office Action rejected claims 1-5, 7-12, 56- 61 under 35 U.S.C. 102(e), as being anticipated by Tanada (U.S. Publication No. 2002/0054257; hereafter Tanada).

Applicants respectfully assert that Tanada is legally deficient for the purpose of anticipating amended claims 1 and 56 for the reasons that each and every element of the claim in issue is not found in the prior art reference.

The present invention teaches substantially in amended claims 1 and 56, among other things, "*...a color filter layer over the conformal reflective layer, wherein the color filter layer has a substantially planar upper surface and is in full contact with the conformal reflective layer; and a first transparent conductive layer over the color filter layer, wherein the first transparent conductive layer is connected to a thin film transistor for controlling the liquid crystal layer and the conformal reflective layer is electrically isolated from the first transparent conductive layer...*".

According to the teachings of the invention, the color filter layer is formed directly on and in full contact with the conformal reflective layer to provide the smooth and planar top surface. Tanaka, on the other hand, teaches forming blocks of color filters 13 selectively on the reflection film 12, and the blocks of color filter 13 of Tanaka, is not in full contact with the reflection film 12 as taught in the instant case. Hence, the overcoat film 14 is required to be formed over the color filters 13 and the reflection film 12. Further, in order to provide a smooth surface, Tanaka requires the application of an additional overcoat film 14 to the color filters 13. If the electrode layer 15 is directly formed on the color filters 13 without the overcoat film 14 in-between, **the topographic**

surface of the electrode layer 15 will be distorted and uneven due to the presence of the blocks of color filters 13, and thus a uniform cell gap can not be obtained due to the distorted electrode layer 15. In brief, there is no teaching or suggestion in Tanaka to provide the electrode layer 15 being conformal to the color filters 13 and to have a smooth upper surface absent of the overcoat film 14 and also be in full contact with the reflective layer.

On the other hand, in the present invention, a smooth top surface can be provided solely by the color filter layer, and **the first transparent conductive layer can be conformably formed over the color filter** to provide a uniform cell gap with a smooth top surface of the first transparent conductive layer. Other additional transparent layers may be conformably formed between the first transparent conductive layer and the color filter layer without deforming the transparent conductive layer. Therefore, a planarization layer, such as overcoat film, is not required for the present invention. In the present invention, the planar surface of the color filter provides better position alignment of each pixel and the first transparent conductive layer with planar top surface prevents liquid crystal misalignment.

Moreover, claims 1 and 56 specifically teaches that the first transparent conductive layer is connected to the thin film transistor for controlling the liquid crystal. In essence, the present invention teaches an active type LCD in which a grid of transistors (e.g TFT) are used to control current to the liquid crystals. Tanada basically teaches a passive type LCD which uses a simple conductive strip or line to deliver current to the liquid crystals. Therefore, Tanada also fails to render the present invention anticipated in

this regards.

If Tanada's passive type LCD is transformed into an active type LCD, the structure must be redesigned or reconstructed. Moreover, in the rejection to claim 6 of the Office Action, the Examiner states that "the first conductive layer of Tanada connected to TFT for controlling the liquid crystal layer since one would be motivated to provide a configuration that makes it to control **the reflective layer**, as it situated in between the transistor and the transparent conductive layer, in order to .....". This statement obviously conflicts with Nakai and the present invention. For the present invention, "the first transparent conductive layer is connected to a thin film transistor for controlling the liquid crystal layer...." It is clear that the liquid crystal layer is controlled by the first transparent conductive layer, and not be controlled by the reflective layer as stated by the Examiner. In Fig. 13 of Nakai, the reflector 16 does not connect to the TFT 19. Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another.

For at least these reasons, Applicants respectfully assert that Tanada and Nakai fail to teach or suggest the present invention or to render claims 1 and 56 anticipated. Since claims 2-5, 7, 10, 11, 13, 57-59 are dependent claims, which further define the invention recited in claims 1 and 56, Applicants respectfully assert that these claims also are in condition for allowance. Thus, reconsideration and withdrawal of this rejection are respectively requested.

The Office Action has rejected claim 13 under 35 U.S.C. 103(a), as being unpatentable over Tanada.

The Office Action has rejected claim 6 under 35 U.S.C. 103(a), as being unpatentable over Tanada in view of Nakai et al. (U.S. U.S. Patent No. 6,144,429; hereafter Nakai).

With regard to the 103 rejections of claims 13 by Tanada and claim 6 by Tanada in view of Nakai, claim 6 is amended into claim 1 and Applicants respectfully submit that these claims defined over the prior art references for at least the reasons discussed above.

Moreover, although the Office recognizes that Tanada fails to disclose the first conductive layer being connected to the TFT for controlling the LCD, the Office nevertheless asserts that Nakai teaches the missing features. Applicants respectfully disagree for at least the following reasons.

Tanada teaches forming an overcoat film 14 on the reflection film 12, and forming the electrode layer 15 for driving the LC layer 30 on the overcoat film 14. On the other hand, Nakai teaches a LCD device by forming a light scattering layer 15 on the reflector 16 and forming the pixel electrode 14 on the light scattering layer 15. The light scattering layer 15 is a resin layer with semiconductive metal oxide particles, for example, zinc oxide or titanium oxide, embedded therein. Therefore, the light scattering layer 15 of Nakai can not be construed as comparable an overcoat film or a transparent dielectric layer. Although Nakai may teach forming a pixel electrode 14, there is no suggestion of forming the pixel electrode 14 on an overcoat film, or even conformably forming the pixel electrode 14 over a color filter layer. In fact, it is essential for Nakai to form the light

scattering layer 15 on the reflector 16 and forming the pixel electrode on the light scattering layer to overcome the problems of irregular reflection of light. Accordingly, Nakai teaches away of forming the pixel electrode 14 on an overcoat film or a transparent dielectric layer, and the motivation to modify and to combine the prior art references Tanada with Nakai is lacking.

Hence, Applicants respectfully submit that Tanaka and Tanaka in views of Nakai fail respectively to render claims 13 and 1 unpatentable, in which claim 6 is amended into claim 1. Moreover, since claim 13 is a dependent claim which further defines the invention recited in claim 1, Applicants respectfully assert that these claims also are in condition for allowance according to the same reasons as discussed above for the 102 rejection. Thus, reconsideration and withdrawal of this rejection are respectively requested.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-5, 7, 10, 11, 13 and 56-59 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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